

THE PROCESS OF MAKING CIGARETTES BEGINS IN THE FIELD, WHERE THE TOBACCO IS GROWN AND HARVESTED. THERE ARE TWO TYPES OF DOMESTIC TOBACCO, BRIGHT AND BURLEY. THE UNIQUE TASTE OF AMERICAN CIGARETTES IS A RESULT OF THE BLENDING OF BURLEY AND BRIGHT TOBACCOS, WHICH HAVE DIFFERENT CHARACTERISTICS.

ONCE THE TOBACCO IS HARVESTED AND DRIED, A PROCESS KNOWN AS CURING, IT IS THEN SHIPPED TO A STEMMERY, WHERE STEMS AND VEINS ARE SEPARATED FROM THE LAMINA, THE PREFERRED PART OF THE TOBACCO LEAF.

THE LAMINA IS SENT TO A WAREHOUSE WHERE IT IS AGED FOR AS LONG AS TWO YEARS, TO MELLOW AND DEVELOP ITS FLAVOR. DURING THE AGING PROCESS THE CROP IS EVALUATED TO DETERMINE ITS CHARACTERISTICS FOR THE PURPOSE OF BLENDING.

IN ORDER TO MAKE CIGARETTES MOST EFFICIENTLY AND ECONOMICALLY, EVERY PART OF THE TOBACCO LEAF IS USED. BUT IN ORDER TO USE MANY OF THOSE PARTS, FURTHER PROCESSING IS REQUIRED. IN ADDITION TO THE BURLEY AND BRIGHT LAMINA WHICH IS BLENDED WITH IMPORTED ORIENTAL TOBACCO, THERE ARE 5 OTHER COMPONENTS OF THE TOBACCO BLEND- RECONSTITUTED LEAF, BLENDED LEAF, IMPROVED STEM, EXPANDED STEM AND EXPANDED TOBACCO.

REUTERS TV/PM USA HOW CIGARETTES ARE MADE 8TH DRAFT 2/22/94 8 PM

LETS LOOK AT EACH OF THOSE FIVE COMPONENTS. RECONSTITUTED LEAF, RL, IS COMPRISED OF STEMS, SMALL LAMINA AND OTHER SMALL PARTICLES OF TOBACCO, RECOVERED FROM THE MANUFACTURING PROCESSES. IN ORDER TO BE UTILIZED IN CIGARETTE MANUFACTURING, RL IS PROCESSED INTO A FORM TO RESEMBLE LAMINA, MUCH LIKE A SHEET OF PAPER. IN ORDER TO MAKE THAT RL SHEET, THE WATER-SOLUBLE MATERIAL MUST BE SEPARATED FROM THE TOBACCO FIBER. THIS IS DONE BY ADDING HOT WATER AND AGITATING IT TO SEPARATE THE WATER SOLUBLE MATERIAL FROM THE TOBACCO FIBER. ONCE THE LIQUID IS SEPARATED FROM THE TOBACCO FIBER, THE FIBER IS REFINED AND PROCESSED INTO SHEET FORM.

THE SEPARATED WATER SOLUBLE MATERIAL CONTAINS NUMEROUS COMPOUNDS, ALL OF WHICH EXISTED IN, AND WERE NATURALLY EXTRACTED FROM THE TOBACCO MATERIAL. THE WATER IS PARTIALLY EVAPORATED, LEAVING THE TOBACCO SOLUBLES. THE SOLUBLES ARE THEN MIXED WITH FLAVORINGS, PRESERVATIVES AND HUMECTANTS, WHICH HELP MAINTAIN MOISTURE AND PLIABILITY. THE TOBACCO SOLUBLES ARE THEN REAPPLIED TO THE RL SHEET. THE RL IS DRIED, CUT INTO LAMINA-SIZED PIECES AND IS READY TO BECOME PART OF THE TOBACCO BLEND. AT NO POINT IN THE RL, RECONSTITUTED LEAF PROCESS, IS ADDITIONAL NICOTINE INTRODUCED. IN FACT, THE NICOTINE LEVEL IN THE FINISHED RL IS 20 TO 25% LOWER THAN THE NICOTINE LEVEL IN THE RAW MATERIALS.

2023913941

REUTERS TV/PM USA HOW CIGARETTES ARE MADE 8TH DRAFT 2/22/94 8 PM

LIKE RL, BLENDED LEAF, BL, RESULTS IN A SHEET PRODUCT AS WELL. BL IS COMPRISED OF BURLEY STEMS AND SMALL TOBACCO PARTICLES, RECOVERED FROM TOBACCO PROCESSING. THEY ARE GROUND TO A UNIFORM SIZE, BLENDED AND MIXED WITH PROCESSING AIDS TO RELEASE THE PECTIN, A NATURALLY OCCURRING CARBOHYDRATE IN PLANTS. WHEN HEATED, PECTIN FORMS A GEL-LIKE MATERIAL THAT BINDS THE PARTICLES TOGETHER. FLAVORINGS, HUMECTANTS AND PRESERVATIVES ARE ADDED AND THE MIXTURE IS CAST ONTO A MOVING BELT, HEATED AND DRIED TO FORM THE SHEET. IT IS FURTHER DRIED AND CUT INTO LAMINA SIZED PIECES AND THEN, IT TOO, IS READY TO BECOME PART OF THE TOBACCO BLEND.

THE LAST THREE COMPONENTS: IS-IMPROVED STEM, ES-EXPANDED STEM AND ET-EXPANDED TOBACCO ARE ALL MADE FROM TOBACCO COMPONENTS THAT HAVE BEEN EXPANDED OR PUFFED UP. USE OF EXPANDED PRODUCTS MAKES CIGARETTES MORE COST EFFECTIVE TO PRODUCE BECAUSE EXPANDED TOBACCO HAS INCREASED VOLUME AND LOWER WEIGHT. THEREFORE CIGARETTES MADE WITH EXPANDED PRODUCTS REQUIRE LESS TOBACCO.

IN ADDITION, EXPANDED PRODUCTS YIELD LESS TAR AND NICOTINE, BECAUSE SOME NICOTINE IS LOST IN THE EXPANSION PROCESS. AS WELL, IS AND ES ARE MADE FROM BRIGHT TOBACCO STEMS, WHICH YIELD LESS TAR AND NICOTINE THAN LAMINA.

2023913942

EXPANDED PRODUCTS ARE MANUFACTURED WITH TWO BASIC PROCESSES. IS AND ES USE BRIGHT TOBACCO STEMS THAT ARE MOISTENED WITH WATER AND STEAM. THE STEMS ARE THEN ROLLED AND CUT. HUMECTANTS ARE ADDED TO ES FOR MOISTURE RETENTION; SUGAR IS ADDED FOR FLAVOR. THE ES IS DRIED IN AN EXPANSION TOWER TO ITS FINAL MOISTURE. IS IS MADE BY STEAMING AND THEN DRYING TO PRODUCE EXPANSION. ET USES CUT, BRIGHT AND BURLEY LAMINA, WITH SUGAR AND HUMECTANTS ADDED, AND THEN IT IS IMPREGNATED WITH LIQUID CARBON DIOXIDE AND EXPANDED IN A TOWER, MUCH THE SAME AS ES.

AT THIS POINT RECONSTITUTED LEAF-RL, BLENDED LEAF-BL, IMPROVED STEM-IS, EXPANDED STEM-ES AND EXPANDED TOBACCO-ET ARE COMPLETE AND READY TO BE BLENDED WITH THE BURLEY LAMINA, BRIGHT LAMINA AND ORIENTAL TOBACCOS. NEVER AT ANY POINT, IN THE PROCESSING OF ANY OF THESE COMPONENTS, HAS ANY ADDITIONAL NICOTINE BEEN INTRODUCED. THE COMPONENTS ARE THEN TRANSPORTED TO THE CIGARETTE MANUFACTURING FACILITIES.

DEPENDING ON WHICH BRAND OF CIGARETTE IS TO BE PRODUCED, THE AMOUNT OF EACH COMPONENT TO BE USED IS SELECTED BY COMPUTER, BASED ON LEAF DEPARTMENT FORMULATION. THE BRIGHT AND BURLEY LAMINA, RL, BL AND ORIENTAL TOBACCOS ARE INDIVIDUALLY CONDITIONED WITH STEAM TO INCREASE MOISTURE AND TEMPERATURE TO REDUCE BREAKAGE.

2023913943

REUTERS TV/PM USA HOW CIGARETTES ARE MADE 8TH DRAFT 2/22/94 8 PM

THE LEAF SEPARATION PROCESS IS CONTINUED IN THE FEEDERS AND AIR SEPARATORS. THE BRIGHT AND ORIENTAL TOBACCOS ARE MIXED AND A LEAF DRESSING IS APPLIED, CONSISTING OF HUMECTANTS AND FLAVORS. THE BURLEY LAMINA HAS A SIMILAR FLAVOR SPRAY APPLIED, INCLUDING HUMECTANTS, SUGAR, CHOCOLATE AND LICORICE. AND THEN IT IS REDRIED. AN ADDITIONAL SPECIFIC BURLEY DRESSING IS APPLIED. THESE COMPONENTS ARE THEN BLENDED TOGETHER WITH THE RL AND BL ACCORDING TO THE FORMULATIONS FOR EACH CIGARETTE BRAND. THAT PARTIAL BLEND IS STEAMED AND THEN GOES TO THE CUTTING LINE WHERE IT IS CUT TO A UNIFORM SIZE, AND SENT TO A ROTARY DRYER, TO REDUCE AND CONTROL THE MOISTURE CONTENT.

AT THIS POINT- IS, ES, ET, AND BRIGHT/BURLEY/ORIENTAL SMALL LAMINA ARE ADDED IN BRAND-SPECIFIC FORMULATIONS AND THE TOTAL BLEND, ALL THE TOBACCO THAT GOES INTO A CIGARETTE, IS NOW COMPLETE. THE TOBACCO THEN GOES TO THE FINAL FLAVOR CYLINDER, WHERE FLAVORINGS ARE ADDED, USING DENATURED ETHYL ALCOHOL.

DENATURED ALCOHOL IS ALCOHOL WHICH HAS BEEN RENDERED UNDRINKABLE. IT MUST BE USED IN THIS PROCESS BECAUSE THESE FLAVORINGS WILL NOT DISSOLVE IN WATER. ALCOHOL DENATURED WITH NICOTINE SULFATE AND METHYLENE BLUE IS THE ONLY DENATURED ALCOHOL APPROVED TO BE USED IN TOBACCO PROCESSING BY THE BUREAU OF ALCOHOL, TOBACCO AND FIREARMS.

2023913944

NICOTINE IN THE DENATURED ALCOHOL CONTRIBUTES LESS THAN ONE-THOUSANDTH OF ONE PERCENT TO THE NICOTINE CONTENT IN A CIGARETTE. IN FACT, THERE IS LESS NICOTINE IN THE FINAL TOBACCO BLEND, AND INDEED THE FINAL CIGARETTE, THAN EXISTED IN THE TOBACCO MATERIALS, BEFORE THEY WERE HARVESTED OR PROCESSED.

ONCE THE FINAL FLAVORINGS ARE ADDED TO THE TOBACCO, IT IS PUT IN SHORT TERM STORAGE. THE TOTAL BLEND IS THEN FED INTO CIGARETTE MAKING MACHINES, WHERE IT IS ROLLED IN PAPER AND A LONG, CONTINUOUS CIGARETTE ROD IS CREATED. IT IS THEN CUT TO A SPECIFIC LENGTH, DEPENDING ON THE BRAND, AND DELIVERED TO THE TIPPING MACHINE WHERE THE FILTER IS APPLIED.

THE FINISHED CIGARETTES ARE THEN PACKAGED, SEALED, AND READY FOR SHIPMENT. AND THAT'S HOW CIGARETTES ARE MADE.

2023913945